

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/080,9/7A
Source: 1Fw16
Date Processed by STIC: 11/26/04

ENTERED



IFW16

RAW SEQUENCE LISTING

DATE: 11/26/2004

PATENT APPLICATION: US/10/080,917A

TIME: 09:01:47

Input Set : A:\09598-006001.txt

Output Set: N:\CRF4\11262004\J080917A.raw

4 <110> APPLICANT: Cadet, Patrick
 5 Stefano, George B.
 7 <120> TITLE OF INVENTION: Opiate Receptors
 10 <130> FILE REFERENCE: 09598-006001
 12 <140> CURRENT APPLICATION NUMBER: US 10/080,917A
 13 <141> CURRENT FILING DATE: 2002-02-22
 15 <150> PRIOR APPLICATION NUMBER: US 60/270,479
 16 <151> PRIOR FILING DATE: 2001-02-22
 18 <150> PRIOR APPLICATION NUMBER: US 60/336,677
 19 <151> PRIOR FILING DATE: 2001-12-05
 21 <160> NUMBER OF SEQ ID NOS: 29
 23 <170> SOFTWARE: FastSEQ for Windows Version 4.0
 25 <210> SEQ ID NO: 1
 26 <211> LENGTH: 81
 27 <212> TYPE: DNA
 28 <213> ORGANISM: Homo Sapiens
 30 <400> SEQUENCE: 1
 31 aattattata taattcatag atgttgctgc aatacccctc ttatttctca aaagccagtc 60
 32 ttgctctggt tctgtgatta a 81
 34 <210> SEQ ID NO: 2
 35 <211> LENGTH: 26
 36 <212> TYPE: PRT
 37 <213> ORGANISM: Homo Sapiens
 39 <220> FEATURE:
 40 <223> OTHER INFORMATION: Peptide fragment
 42 <400> SEQUENCE: 2
 43 Asn Tyr Tyr Ile Ile His Arg Leu Cys Cys Asn Thr Pro Leu Ile Ser
 44 1 5 10 15
 45 Gln Lys Pro Val Leu Leu Trp Phe Cys Asp
 46 20 25
 48 <210> SEQ ID NO: 3
 49 <211> LENGTH: 262
 50 <212> TYPE: DNA
 51 <213> ORGANISM: Homo Sapiens
 53 <220> FEATURE:
 54 <221> NAME/KEY: misc_feature
 55 <222> LOCATION: (1)...(262)
 56 <223> OTHER INFORMATION: n = A,T,C or G
 58 <400> SEQUENCE: 3
 59 aattattata taattcatag atgttgctgc aatacccctc ttatttctca aaagccagtc 60
 60 ttgctctggt tctgtgatta aagagagagg gtgagtgcct tgcccactgt ggtcatggat 120
 W--> 61 gcaagatatt cacagaaaat tagcatcata gaaaaaaaaa nnaaaaaaaaaa aaaaaaaaaa 180
 W--> 62 ncatgtcggc cgcctcggcc aaacatcggg tcgagcatgc atctagggcg gccaatccg 240

RAW SEQUENCE LISTING

DATE: 11/26/2004

PATENT APPLICATION: US/10/080,917A

TIME: 09:01:47

Input Set : A:\09598-006001.txt

Output Set : N:\CRF4\11262004\J080917A.raw

```

W--> 63 cccctctccc cccnncnnt tt                                     262
65 <210> SEQ ID NO: 4
66 <211> LENGTH: 945
67 <212> TYPE: DNA
68 <213> ORGANISM: Homo Sapiens
70 <400> SEQUENCE: 4
71 atgaagactg ccaccaacat ctacattttc aaccttgtct tggcagatgc cttagccacc      60
72 agtaccctgc ccttcagag tgtgaattac ctaatgggaa catggccatt tggaaccatc      120
73 ctttgcaaga tagtgatctc catagattac tataacatgt tcaccagcat attcaccctc      180
74 tgcaccatga gtgttgatcg atacattgca gtctgccacc ctgtcaaggc cttagatttc      240
75 cgtactcccc gaaatgccaa aattatcaat gtctgcaact ggatcctctc ttcagccatt      300
76 ggtcttctcg taatgttcat ggctacaaca aaatacaggc aaggttccat agattgtaca      360
77 ctaacattct ctcaccaac ctggtactgg gaaaacctgc tgaagatctg tgttttcatc      420
78 ttgcgcttca ttatgccagt gctcatcatt accgtgtgct atggactgat gatcttgcgc      480
79 ctcaagagtg tccgcatgct ctctggctcc aaagaaaagg acaggaatct tcgaaggatc      540
80 accaggatgg tgctggtggt ggtggctgtg ttcctcgtct gctggactcc cattcacatt      600
81 tacgtcatca ttaaagcctt gggtacaatc ccagaaacta cgttccagac tgtttcttgg      660
82 cacttctgca ttgctctagg ttacacaaac agctgctca acccagtcct ttatgcattt      720
83 ctggatgaaa acttcaaacg atgcttcaga gagttctgta tcccaacctc ttccaacatt      780
84 gagcaacaaa actccactcg aattcgtcag aacactagag accacccctc cacggccaat      840
85 acagtggata gaactaatca tcagaattat tatataattc atagatgttg ctgcaatacc      900
86 cctcttattt ctcaaaagcc agtcttgctc tggttctgtg attaa                               945
88 <210> SEQ ID NO: 5
89 <211> LENGTH: 314
90 <212> TYPE: PRT
91 <213> ORGANISM: Homo Sapiens
93 <400> SEQUENCE: 5
94 Met Lys Thr Ala Thr Asn Ile Tyr Ile Phe Asn Leu Ala Leu Ala Asp
95 1 5 10 15
96 Ala Leu Ala Thr Ser Thr Leu Pro Phe Gln Ser Val Asn Tyr Leu Met
97 20 25 30
98 Gly Thr Trp Pro Phe Gly Thr Ile Leu Cys Lys Ile Val Ile Ser Ile
99 35 40 45
100 Asp Tyr Tyr Asn Met Phe Thr Ser Ile Phe Thr Leu Cys Thr Met Ser
101 50 55 60
102 Val Asp Arg Tyr Ile Ala Val Cys His Pro Val Lys Ala Leu Asp Phe
103 65 70 75 80
104 Arg Thr Pro Arg Asn Ala Lys Ile Ile Asn Val Cys Asn Trp Ile Leu
105 85 90 95
106 Ser Ser Ala Ile Gly Leu Pro Val Met Phe Met Ala Thr Thr Lys Tyr
107 100 105 110
108 Arg Gln Gly Ser Ile Asp Cys Thr Leu Thr Phe Ser His Pro Thr Trp
109 115 120 125
110 Tyr Trp Glu Asn Leu Leu Lys Ile Cys Val Phe Ile Phe Ala Phe Ile
111 130 135 140
112 Met Pro Val Leu Ile Ile Thr Val Cys Tyr Gly Leu Met Ile Leu Arg
113 145 150 155 160
114 Leu Lys Ser Val Arg Met Leu Ser Gly Ser Lys Glu Lys Asp Arg Asn
115 165 170 175

```

RAW SEQUENCE LISTING

DATE: 11/26/2004

PATENT APPLICATION: US/10/080,917A

TIME: 09:01:47

Input Set : A:\09598-006001.txt

Output Set: N:\CRF4\11262004\J080917A.raw

```

116 Leu Arg Arg Ile Thr Arg Met Val Leu Val Val Val Ala Val Phe Ile
117           180           185           190
118 Val Cys Trp Thr Pro Ile His Ile Tyr Val Ile Ile Lys Ala Leu Val
119           195           200           205
120 Thr Ile Pro Glu Thr Thr Phe Gln Thr Val Ser Trp His Phe Cys Ile
121           210           215           220
122 Ala Leu Gly Tyr Thr Asn Ser Cys Leu Asn Pro Val Leu Tyr Ala Phe
123 225           230           235           240
124 Leu Asp Glu Asn Phe Lys Arg Cys Phe Arg Glu Phe Cys Ile Pro Thr
125           245           250           255
126 Ser Ser Asn Ile Glu Gln Gln Asn Ser Thr Arg Ile Arg Gln Asn Thr
127           260           265           270
128 Arg Asp His Pro Ser Thr Ala Asn Thr Val Asp Arg Thr Asn His Gln
129           275           280           285
130 Asn Tyr Tyr Ile Ile His Arg Leu Cys Cys Asn Thr Pro Leu Ile Ser
131           290           295           300
132 Gln Lys Pro Val Leu Leu Trp Phe Cys Asp
133 305           310

```

135 <210> SEQ ID NO: 6

136 <211> LENGTH: 1431

137 <212> TYPE: DNA

138 <213> ORGANISM: Homo Sapiens

140 <400> SEQUENCE: 6

```

141 atgtcagatg ctcagctcgg tccccctcgc ctgacgctcc tctctgtctc agccaggact      60
142 ggtttctgta agaaacagca ggagctgtgg cagcggcgaa aggaagcggc tgaggcgctt      120
143 ggaacccgaa aagtctcggg gctcctgggt acctcgcaca gcggtgcccg cccggccgctc      180
144 agtaccatgg acagcagcgc tgcacccacg aacgccagca attgcactga tgccttggcg      240
145 tactcaagtt gtcacccagc acccagcccc gggtcctggg tcaacttgct ccacttagat      300
146 ggcaacctgt ccgacccatg cggtcggaac cgcaccgacc tgggcggggag agacagcctg      360
147 tgccctccga ccggcagtc ctcctatgat acggccatca cgatcatggc cctctactcc      420
148 atcgtgtgcg tgggtggggct ctccggaaac ttcttggtca tgtatgtgat tgcagatac      480
149 accaagatga agactgccac caacatctac attttcaacc ttgctctggc agatgcctta      540
150 gccaccagta ccttgccctt ccagagtgtg aattacctaa tgggaacatg gccatttggg      600
151 accatccttt gcaagatagt gatctccata gattactata acatgttcac cagcatattc      660
152 accctctgca ccatgagtg tgcagatac attgcagtc gccaccctgt caaggcctta      720
153 gatttccgta ctccccgaaa tgccaaaatt atcaatgtct gcaactggat cctctcttca      780
154 gccattgggc ttctgtaat gttcatggct acaacaaaat acaggcaagg ttccatagat      840
155 tgtacactaa cattctctca tccaacctgg tactgggaaa acctgctgaa gatctgtgtt      900
156 ttcatcttcg ccttcattat gccagtgtc atcattaccg tgtgctatgg actgatgatc      960
157 ttgcgcctca agagtgtccg catgtctctt ggctccaaag aaaaggacag gaatcttcga      1020
158 aggatcacca ggatgggtgct ggtgggtggt gctgtgttca tcgtctgctg gactcccatt      1080
159 cacatttacg tcatcattaa agccttgggt acaatcccag aaactacgtt ccagactggt      1140
160 tcttggcact tctgcattgc tctaggttac acaaacagct gcctcaacct agtcctttat      1200
161 gcatttctgg atgaaaactt caaacgatgc ttcagagagt tctgtatccc aacctcttcc      1260
162 aacattgagc aacaaaactc cactcgaatt cgtcagaaca ctagagacca cccctccacg      1320
163 gccaatagag tggatagaac taatcatcag aattattata taattcatag atgttgctgc      1380
164 aatacccctc ttatttctca aaagccagtc ttgctctggt tctgtgatta a      1431

```

166 <210> SEQ ID NO: 7

167 <211> LENGTH: 476

RAW SEQUENCE LISTING

DATE: 11/26/2004

PATENT APPLICATION: US/10/080,917A

TIME: 09:01:47

Input Set : A:\09598-006001.txt

Output Set: N:\CRF4\11262004\J080917A.raw

```

168 <212> TYPE: PRT
169 <213> ORGANISM: Homo Sapiens
171 <400> SEQUENCE: 7
172 Met Ser Asp Ala Gln Leu Gly Pro Leu Arg Leu Thr Leu Leu Ser Val
173   1           5           10           15
174 Ser Ala Arg Thr Gly Phe Cys Lys Lys Gln Gln Glu Leu Trp Gln Arg
175           20           25           30
176 Arg Lys Glu Ala Ala Glu Ala Leu Gly Thr Arg Lys Val Ser Val Leu
177           35           40           45
178 Leu Ala Thr Ser His Ser Gly Ala Arg Pro Ala Val Ser Thr Met Asp
179           50           55           60
180 Ser Ser Ala Ala Pro Thr Asn Ala Ser Asn Cys Thr Asp Ala Leu Ala
181 65           70           75           80
182 Tyr Ser Ser Cys Ser Pro Ala Pro Ser Pro Gly Ser Trp Val Asn Leu
183           85           90           95
184 Ser His Leu Asp Gly Asn Leu Ser Asp Pro Cys Gly Pro Asn Arg Thr
185           100          105          110
186 Asp Leu Gly Gly Arg Asp Ser Leu Cys Pro Pro Thr Gly Ser Pro Ser
187           115          120          125
188 Met Ile Thr Ala Ile Thr Ile Met Ala Leu Tyr Ser Ile Val Cys Val
189           130          135          140
190 Val Gly Leu Phe Gly Asn Phe Leu Val Met Tyr Val Ile Val Arg Tyr
191 145          150          155          160
192 Thr Lys Met Lys Thr Ala Thr Asn Ile Tyr Ile Phe Asn Leu Ala Leu
193           165          170          175
194 Ala Asp Ala Leu Ala Thr Ser Thr Leu Pro Phe Gln Ser Val Asn Tyr
195           180          185          190
196 Leu Met Gly Thr Trp Pro Phe Gly Thr Ile Leu Cys Lys Ile Val Ile
197           195          200          205
198 Ser Ile Asp Tyr Tyr Asn Met Phe Thr Ser Ile Phe Thr Leu Cys Thr
199           210          215          220
200 Met Ser Val Asp Arg Tyr Ile Ala Val Cys His Pro Val Lys Ala Leu
201 225          230          235          240
202 Asp Phe Arg Thr Pro Arg Asn Ala Lys Ile Ile Asn Val Cys Asn Trp
203           245          250          255
204 Ile Leu Ser Ser Ala Ile Gly Leu Pro Val Met Phe Met Ala Thr Thr
205           260          265          270
206 Lys Tyr Arg Gln Gly Ser Ile Asp Cys Thr Leu Thr Phe Ser His Pro
207           275          280          285
208 Thr Trp Tyr Trp Glu Asn Leu Leu Lys Ile Cys Val Phe Ile Phe Ala
209           290          295          300
210 Phe Ile Met Pro Val Leu Ile Ile Thr Val Cys Tyr Gly Leu Met Ile
211 305          310          315          320
212 Leu Arg Leu Lys Ser Val Arg Met Leu Ser Gly Ser Lys Glu Lys Asp
213           325          330          335
214 Arg Asn Leu Arg Arg Ile Thr Arg Met Val Leu Val Val Val Ala Val
215           340          345          350
216 Phe Ile Val Cys Trp Thr Pro Ile His Ile Tyr Val Ile Lys Ala
217           355          360          365

```

RAW SEQUENCE LISTING

DATE: 11/26/2004

PATENT APPLICATION: US/10/080,917A

TIME: 09:01:47

Input Set : A:\09598-006001.txt

Output Set: N:\CRF4\11262004\J080917A.raw

218 Leu Val Thr Ile Pro Glu Thr Thr Phe Gln Thr Val Ser Trp His Phe
 219 370 375 380
 220 Cys Ile Ala Leu Gly Tyr Thr Asn Ser Cys Leu Asn Pro Val Leu Tyr
 221 385 390 395 400
 222 Ala Phe Leu Asp Glu Asn Phe Lys Arg Cys Phe Arg Glu Phe Cys Ile
 223 405 410 415
 224 Pro Thr Ser Ser Asn Ile Glu Gln Gln Asn Ser Thr Arg Ile Arg Gln
 225 420 425 430
 226 Asn Thr Arg Asp His Pro Ser Thr Ala Asn Thr Val Asp Arg Thr Asn
 227 435 440 445
 228 His Gln Asn Tyr Tyr Ile Ile His Arg Leu Cys Cys Asn Thr Pro Leu
 229 450 455 460
 230 Ile Ser Gln Lys Pro Val Leu Leu Trp Phe Cys Asp
 231 465 470 475

233 <210> SEQ ID NO: 8

234 <211> LENGTH: 1245

235 <212> TYPE: DNA

236 <213> ORGANISM: Homo Sapiens

238 <400> SEQUENCE: 8

239 atggacagca gcgctgcccc cacgaacgcc agcaattgca ctgatgcctt ggcgtactca 60
 240 agttgctccc cagcaccacag ccccggttcc tgggtcaact tgtcccactt agatggcaac 120
 241 ctgtccgacc catgcgggtcc gaaccgcacc gacctgggcg ggagagacag cctgtgccct 180
 242 ccgaccggca gtccctccat gatcacggcc atcacgatca tggccctcta ctccatcgtg 240
 243 tgcgtgggtgg ggctcttcgg aaacttcctg gtcattgtatg tgattgtcag atacaccaag 300
 244 atgaagactg ccaccaacat ctacattttc aaccttgctc tggcagatgc cttagccacc 360
 245 agtaccctgc ccttcacagag tgtgaattac ctaatgggaa catggccatt tgggaaccatc 420
 246 ctttgcaaga tagtgatctc catagattac tataacatgt tcaccagcat attcaccctc 480
 247 tgcaccatga gtgttgatcg atacattgca gtctgccacc ctgtcaaggc cttagatttc 540
 248 cgtactcccc gaaatgccaa aattatcaat gtctgcaact ggatcctctc ttcagccatt 600
 249 ggtcttcctg taatgttcat ggctacaaca aaatacaggc aaggttccat agattgtaca 660
 250 ctaacattct ctcatccaac ctgggtactgg gaaaacctgc tgaagatctg tgttttcac 720
 251 ttcgccttca ttatgccagt gctcatcatt accgtgtgct atggactgat gatcttgccg 780
 252 ctcaagagtg tccgcattgt ctctggctcc aaagaaaagg acaggaatct tcgaaggatc 840
 253 accaggatgg tgetgggtgg ggtgggtgtg ttcacgtctc gctggactcc cattcacatt 900
 254 tacgtcatca ttaaagcctt gggtacaatc ccagaaacta cgttccagac tgtttcttgg 960
 255 cacttctgca ttgtcttagg ttacacaaac agctgcctca acccagtcct ttatgcattt 1020
 256 ctggatgaaa acttcaaacg atgcttcaga gagttctgta tcccaacctc ttccaacatt 1080
 257 gagcaacaaa actccactcg aattcgtcag aacactagag accaccctc cacggccaat 1140
 258 acagtggata gaactaatca tcagaattat tatataattc atagatgttg ctgcaatacc 1200
 259 cctcttattt ctcaaaagcc agtcttgctc tggttctgtg attaa 1245

261 <210> SEQ ID NO: 9

262 <211> LENGTH: 414

263 <212> TYPE: PRT

264 <213> ORGANISM: Homo Sapiens

266 <400> SEQUENCE: 9

267 Met Asp Ser Ser Ala Ala Pro Thr Asn Ala Ser Asn Cys Thr Asp Ala
 268 1 5 10 15
 269 Leu Ala Tyr Ser Ser Cys Ser Pro Ala Pro Ser Pro Gly Ser Trp Val
 270 20 25 30

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/080,917A

DATE: 11/26/2004
TIME: 09:01:48

Input Set : A:\09598-006001.txt
Output Set: N:\CRF4\11262004\J080917A.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:3; N Pos. 160,161,162,181,255,258,259
Seq#:21; N Pos. 533,808,809,810,829,903,906,907
Seq#:22; N Pos. 112
Seq#:23; N Pos. 1091,1366,1367,1368,1387,1461,1464,1465
Seq#:29; Xaa Pos. 2,4,5

VERIFICATION SUMMARY

DATE: 11/26/2004

PATENT APPLICATION: US/10/080,917A

TIME: 09:01:48

Input Set : A:\09598-006001.txt

Output Set: N:\CRF4\11262004\J080917A.raw

L:61 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:120
L:62 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:180
L:63 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:240
L:580 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:480
L:585 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:780
L:587 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:900
L:601 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:60
L:634 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:1080
L:638 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:1320
L:639 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:1380
L:640 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:1440
L:708 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:712 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:29
L:716 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:29
L:720 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:29
L:721 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 after pos.:0